



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,926	07/21/2003	Rudolf Maarten Bolle	YOR920000383US2	5377

7590 01/18/2005
Ryan, Mason & Lewis, LLP
Suite 205
1300 Post Road
Fairfield, CT 06824

EXAMINER

WORJLOH, JALATEE

ART UNIT	PAPER NUMBER
----------	--------------

3621

DATE MAILED: 01/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,926

Applicant(s)

BOLLE ET AL.

Examiner

Jalatee Worjloh

Art Unit

3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is responsive to the amendment filed on November 2, 2004.

Response to Arguments

2. Applicant's arguments, see pages 2 & 3, filed November 2, 2004, with respect to the rejection(s) of claim(s) 1-19 under 35 USC 102 & 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of US Patent No. 6735695 to Gopalakrishnan et al. and US Patent No. 6310966 to Dulude et al.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 9, 15, and 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to a process that does nothing more than manipulate an abstract idea. There is no practical application in the technological arts. All that is necessary to make a sequence of operational steps a statutory process within 35 U.S.C. 101 is that it be in the technological arts so as to be in consonance with the Constitutional purpose to promote the progress of "useful arts." *In re Musgrave*, 431 F.2d 882, 167 USPQ 280 (CCPA 1970). Also, a claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result: i.e. the method recites a step or act of producing

Art Unit: 3621

something that is concrete, tangible and useful. *See AT&T v. Excel Communications Inc.*, 172

F.3d at 1358, 50 USPQ2d at 1452. **Note. Include hardware in the claims' body.**

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent NO. 6735695 to Gopalakrishnan et al.

Gopalakrishnan et al. disclose distorting a digital representation of one or more biometrics of a user to create a distorted biometric (i.e. “pattern of biometric information”) using one or more transformation, at least one of the transformations comprising one or more non-invertible functions (i.e. hashing functions are non-invertible), see col. 11, lines 40-45, 51, 52 and 5-16 and comparing, in response to a transaction, the distorted biometric with one or more stored distorted biometrics, so that the distorted biometric represents a user without revealing the digital representation of the one or more biometrics (see col. 11, lines 46-50).

Referring to claims 2-4 and 6, Gopalakrishnan et al. disclose the biometric is a physical characteristic, a behavioral characteristic, includes any one or more of the following: one or more fingerprints, one or more minutiae, a voice pattern, a facial image, an iris, a hand signature, a auditory signature, a gesture, and a gait and the biometric is used to authentic the user (see col. 2, lines 26-35).

Art Unit: 3621

Referring to claim 5, Gopalakrishnan et al. disclose the transaction is for one or more of the following use of a financial instrument, providing a service, executing a contract, a sale, a bid, a submitted account number, an authorization, an identification, a reservation request, a purchase, a quote, an access to a physical structure, an access to a financial account, an authority to manipulate a financial account, an access to a database, an access to information, a request for a privilege, a request for a network service, an offer for a network service an auction, and an enrollment (see col. 2, lines 36-39).

Referring to claims 7 & 8, Gopalakrishnan et al. disclose the user is any one or more of the following : a customer a customer submitting an order on a network, a client, an employee, a user of a service, and a purchaser of a product and being performed by any one or more of the following: a user, a company, a service company, a company selling products, a bank, a computer, and a credit card company.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9-11,14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishnan et al. in view of US Patent No. 6310966 to Dulude et al.

Gopalakrishnan et al. disclose receiving one or more distorted biometrics (i.e. “pattern of biometric information”), wherein said one or more distorted biometrics were created using one or more transformations (i.e. hashing) of a digital representation of one or more biometrics of a

Art Unit: 3621

user, at least one of the transformation comprising one or more non-invertible functions (hash functions are non-invertible) (see col. 11, lines 40-45, 51,52 and 5-16), storing a plurality of records in one or more databases, each record having one or more distorted biometrics (see col4, lines 21-23), receiving one or more request from a requester, the one or more requests containing one or more target distorted biometrics (see col. 2, lines 36-44), comparing the one or more requests with one or more of the records, providing the requester with an indication that the target distorted biometric matched one or more of the respective one or more distorted biometrics (*providing access to said user if said selected at least one biometric information portion matches said corresponding biometric prototype portion*) see col. 11, lines 46-50. Gopalakrishnan et al. do not expressly disclose a user identifier associated with the distorted biometrics. Dulude et al. disclose receiving a user identifier associated with a biometrics and storing the user identifier in a database with its associated biometrics (see col. 5, lines 15-35). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method disclose by Gopalakrishnan et al. to include a user identifier associated with the distorted biometrics. One of ordinary skill in the art would have been motivated to do this because it provides a secure access control mechanism that ensures that unauthorized individuals are prevented from accessing the system.

Referring to claim 10, Gopalakrishnan et al. disclose a database that store biometric data (see claim 9 above). Gopalakrishnan et al. do not expressly disclose storing a distortion transform use dot create the distorted biometric from the digital representation of the one or more biometrics of the user. However, this difference is only found in the nonfunctional descriptive material and is not functionally in the step recited. The storing step would have been performed

Art Unit: 3621

the same regardless of the data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store a plurality of records including any type of data because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of the data does not patentably distinguish the claimed invention.

Referring to claim 11, Gopalakrishnan et al. disclose the distorted biometric can not be inverted to a digital representation of the biometric from which the distorted biometric was created (see claim 9 above).

Referring to claim 14, Gopalakrishnan et al. disclose the requester is any one or more of the following: a financial company, a bank, a brokerage, a credit card company, a merchant (see col. 7, lines 52-55).

Referring to claim 18, Gopalakrishnan et al. disclose sending a transaction request, a distorted biometric (i.e. "pattern of biometric information") determined using one or more transformations (i.e. "hashing function") that transform a digital representation of one or more biometrics of a user to the distorted biometric, at least one of the transformations comprising at least one non-invertible function (see col. 11, lines 40-45, 51, 52, 5-16) and receiving an authorization for a transaction defined by the transaction request (see col. 11, lines 46-50).

Gopalakrishnan et al. do not disclose sending a user identifier. Dulude et al. disclose sending a user identifier (see col. 5, lines 15-35). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method disclosed by Gopalakrishnan

Art Unit: 3621

et al. to include the step of sending a user identifier. One of ordinary skill in the art would have been motivated to do this because it provides additional verification information, which may assist in preventing unauthorized individuals from accessing the system.

8. Claim 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishnan et al. and Dulude et al. as applied to claim 9 above, and further in view of US Patent No. 667538 to Ritter.

Gopalakrishnan et al. disclose distorted biometric (see claim 9 above). Gopalakrishnan et al. do not expressly disclose the distorted biometric is canceled by allowing a user to replace the distorted biometric with a second distorted biometric. Ritter discloses the distorted biometric is canceled by allowing a user to replace the distorted biometric with a second distorted biometric (see col. 4, lines 9-15). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method Gopalakrishnan et al. to include the step wherein the distorted biometric is canceled by allowing a user to replace the distorted biometric with a second distorted biometric. One of ordinary skill in the art would have been motivated to do this because it ensures that changes are updated, thus providing a secure and accurate record of authentication data.

Referring to claim 13, Gopalakrishnan et al. disclose creating distorted biometrics (see claim 9 above). Gopalakrishnan et al. do not expressly disclose the second distorted biometric is created by a second distortion transform that is different than a first distortion transform used to create the distorted biometric; however, this is an inherent step. Since the biometric is being updated/replaced, it must have used a different distortion transform. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the

Art Unit: 3621

method disclose by Gopalakrishnan et al. to include the step wherein the second distorted biometric is created by a second distortion transform that is different than a first distortion transform used to create the distorted biometric. One of ordinary skill in the art would have been motivated to do this because it ensures that changes are updated, thereby providing a secure and accurate record of authentication data.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishnan et al. in view of US Publication No. 2003/0225693 to Ballard et al.

Gopalakrishnan et al. disclose receiving a distorted biometric (i.e. “pattern of biometric information”) and a transaction request, wherein the distorted biometric was created using one or more transformations (i.e. hashing) of a digital representation of one or more biometrics of a user, at least one of the transformations comprising one or more non-invertible functions (notice, hash functions are noninvertible) see col. 11, lines 40-45, 51, 52, 5-16, comparing the received distorted biometric with a stored distorted biometric and granting authorization if the distorted biometric is associated with the user (see col. 11, lines 56-50). Gopalakrishnan et al. do not expressly disclose receiving a user identifier, checking the user identifier with information about one or more accounts of the user, verifying the identity of the user by comparing the received user identifier with a stored user identifier, and granting authorization for the transaction if the information about the account is in good standing. Ballard et al. disclose receiving a user identifier (i.e. “transaction data”), see paragraphs [0081], lines 1-6 & [00137]), checking the user identifier with information about one or more accounts of the user (see paragraph [0076], lines 1-4), verifying the identity of the user by comparing the received user identifier with a stored user identifier (see paragraph [0126], lines 15-18), and granting authorization for the transaction if the

Art Unit: 3621

information about the account is in good standing (see paragraph [0025]). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method disclose by Gopalakrishnan et al. to include the steps of receiving a user identifier, checking the user identifier with information about one or more accounts of the user, verifying the identity of the user by comparing the received user identifier with a stored user identifier, and granting authorization for the transaction if the information about the account is in good standing. One of ordinary skill in the art would have been motivated to do this because it provides security by ensuring the identity of the user, thereby preventing fraud.

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishnan et al. and Ballard et al. as applied to claim 15 above, and further in view of US Patent No. 6092192 to Kanevsky et al.

Gopalakrishnan et al. disclose a digital representation of the distorted biometric (see claim 15 above). Gopalakrishnan et al. do not expressly disclose a user is verified by receiving an acknowledgement from a remote computer that the user identifier is associated with the digital representation of the distorted biometric. Kanevsky et al. disclose the user is verified by receiving an acknowledgement from a remote computer that the user identifier is associated with the digital representation of the distorted biometric (see col. 9, lines –34). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method disclose by Gopalakrishnan et al. to include the step wherein the user is verified by receiving an acknowledgement from a remote computer that the user identifier is associated with the digital representation of the distorted biometric. One of ordinary skill in the art would have

Art Unit: 3621

been motivated to do this because it ensures that unauthorized individuals are prevented from accessing the system.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishnan et al. and Ballard et al. in view of Kanevsky et al.

Gopalakrishnan et al. disclose sending a digital representation of a user biometric to a remote computer that distorts the digital representation of the user biometric to a distorted biometric (i.e. "pattern of biometric information") using one or more transformations (i.e. hashing), at least one of the transformations comprising one or more non-invertible functions (hash functions are noninvertible), see col. 11, lines 40-45, 51, 52 and 5-16. Gopalakrishnan et al. do not expressly disclose sending a user identifier to a financial company, determining that the user identifier is associated with the distorted biometric and sending an acknowledgment to the financial company, receiving an authorization for the transaction request from the financial company if the acknowledgment is sent and the user identifier is associated with a account in good standing. Ballard et al. disclose sending a user identifier to and transaction request to a financial company (see paragraphs [0081], lines 1-6 ; [0018] and [0137]), determining that the user identifier is associated with the distorted biometric (see paragraph [0126], lines 15-18), and receiving an authorization for the transaction request from the financial company if the user is associated with a account in good standing (see paragraphs [0025], [0018]). Kanevsky et al. disclose sending an acknowledgement (see col. 9, lines 1-34). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method disclose by Gopalakrishnan et al. to include the steps of sending a user identifier to a financial company, determining that the user identifier is associated with the distorted biometric and

Art Unit: 3621

sending an acknowledgment to the financial company, receiving an authorization for the transaction request from the financial company if the acknowledgment is sent and the user identifier is associated with a account in good standing. One of ordinary skill in the art would have been motivated to do this because it ensures that unauthorized individuals are prevented from accessing the system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jalatee Worjloh whose telephone number is 703-305-0057. The examiner can normally be reached on Mondays-Thursdays 8:30 - 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 703-305-9768. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 for Regular/After Final Actions and 703-746-9443 for Non-Official/Draft.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:


Art Unit: 3621

Commissioner of Patents and Trademarks
PO Box 1450
Alexandria, VA 22313-1450

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive,
Arlington, V.A., Seventh floor receptionist.



JAMES P. TRAMMELL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600



Jalatee Worjloh
Patent Examiner
Art Unit 3621

January 12, 2005